

# Office of Transportation and Air Quality Compliance Information Systems – OTAQ-CIS

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## Statement of Objective

12/30/2015

This statement of objective is requesting information technology services to primarily support the engines and vehicle compliance programs of the Office of Transportation and Air Quality. These services include, but not limited to, software development, code maintenance, software technology innovation, and help desk services. There is an emphasis on software agile practices (including the use of Scrum), use of open source tools, and transparency.

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## 1. Introduction

The U.S. Environmental Protection Agency's Office of Transportation and Air Quality (OTAQ), Compliance Division (CD), is responsible for developing, implementing, and determining compliance with regulations concerning motor vehicle and engine emissions and fuel economy performance. Laws governing these regulations include Title II of the Clean Air Act (CAA), the Energy Policy and Conservation Act (EPCA), and the Motor Vehicle Information and Cost Savings Act (MVICSA). OTAQ Compliance Information Systems support the implementation of the above stated regulations.

The Data Analysis and Information Center (DAIC) is part of the Compliance Division and the sponsor of this task order.

**1.1. DAIC Vision:** DAIC will be the definitive provider of mobile source emissions and fuel economy data and information.

**1.2. DAIC Mission Statement:** Our mission is to collect and provide access to data and information through quality information technology tools and expertise for government, industry and the public to support EPA's mission.

DAIC is looking for expert companies to participate in a team-based Agile environment. The awardee of this task order shall work alongside other teams of government contractors and federal employees to accomplish projects as assigned by the agency.

The contractors shall work with a technical architecture and design specified by the government, and to work within the Agile process and Scaled Agile frameworks defined by the government team, but shall also be engaged in developing innovative solutions. Individual development teams shall include government employees functioning as Product Owners, Subject Matter Experts, and so on. The contractors are expected to work well in these team environments and demonstrate a highly collaborative and cooperative attitude.

## 2. Background

### 2.1. Legal Authority

EPA derives authority to do its work through a variety of environmental statutes enacted by Congress. Figure 1 outlines the primary environmental statutes that give EPA the authority to develop and implement its mobile source clean air programs.

Statute	Authority
Clean Air Act (CAA)	Emission standards for highway & nonroad vehicles and their fuels
Energy Policy and Conservation Act (EPCA)	Fuel economy information programs for consumers, including vehicle fuel economy labels
Energy Policy Act (EPAAct) Energy Independence and Security Act (EISA)	Annual volume standards for renewable fuel content

FIGURE 1

From locomotives to lawnmowers, EPA's Office of Transportation and Air Quality (OTAQ) has the authority to regulate nearly all engines and vehicles that emit pollutants into the environment. The statutory authority also covers the fuels that power these mobile sources, and includes responsibility for emissions compliance oversight that extends from initial product design to performance on the road or in the field.

## **2.2. Regulatory Authority**

Compliance programs play an essential role in achieving the benefits of statutes and regulations. OTAQ oversees a comprehensive set of compliance activities to ensure that vehicle and engine manufacturers and fuel refiners and producers satisfy their regulatory obligations. EPA regulation of motor vehicles began in the 1970s; for a comprehensive list of EPA mobile source emission standards, refer to EPA's online Emission Standards Reference Guide, available at [www.epa.gov/otaq/standards/index.htm](http://www.epa.gov/otaq/standards/index.htm).

## **2.3. Compliance Program Background**

EPA uses a variety of testing and reporting programs to monitor compliance with emissions regulations. The programs may apply to vehicles and engines before they are produced (pre-production), while they are in production and after they are in customer service (post-production). EPA has the authority and flexibility to choose compliance strategies that best fit an industry sector at any given time. Factors that influence the use of a particular compliance approach include regulatory requirements affecting a given industry sector, the technology being used to meet the emission standards, industry-specific production processes and cycles and sector or manufacturer size.

EPA regulations typically give manufacturers some flexibility about how they will achieve emissions compliance. Examples include emissions standards phase-ins, averaging, banking and trading (ABT) programs and several types of exemptions. This regulatory flexibility enables manufacturers to align their business model with emissions requirements and sometimes allow manufacturers to earn credit for introducing new technologies early. At the same time, some regulatory flexibilities introduce challenges to compliance oversight because vehicles and engines subject to one regulation and set of standards may legally certify to different emissions levels. For the past five years, this project has been performed under BPA SES3 TO1530.

## **2.4. Contractual History of this Project**

For this past 5 years, this project has been performed by Computer Sciences Corporation, within BPA SES3 TO 1530. The following is a chronology of this project:

- 2.4.1. MOSES II contract – 2003 to 2004:** Incumbent SAIC – provided technical consulting for the project initiation. Work products included, Project Charter, Project Scope Statement, Process Diagrams, and a prototype. Contract expired.
- 2.4.2. ITS-ESE contract (follow-up contract to Moses II) – 2004 to 2006:** Incumbent Lockheed-Martin – provided the initial backend architecture and module for the Verify. Work products include software design documents, EPA's Interface to Verify, Oracle Database structure; and the following backend modules: Compliance Documents; Motorcycle/ATV certification module. Task order was not renewed.
- 2.4.3. Federal Technology Service's Millennia Contract (CDX) – 2004 to 2009:** Incumbent CSC – provided initially the manufacturer interfaces and CDX collection; later took over the development of EPA's interface and backend system. Work products included, all XML schemas and web user interface infrastructure for the following Verify modules: Request

Manufacture Code, Maintain Manufacture Code; Upload Compliance Documents; Motorcycle/ATV Certification; Heavy Duty Diesel In-Use, Locomotive Certification; Light Duty Certification; Light Duty Confirmatory Test; Light Duty Fuel Economy Label. Later they also developed for EPA's backend system the following modules: Locomotive Certification; Light Duty Certification; Light Duty Confirmatory Test; Light Duty Fuel Economy Label. Also redefined the backend architecture. Contract expired.

**2.4.4.SES 3 contract - 2009 to 2016:** Incumbent CSC – provided development, maintenance and help desk support for OTAQ Compliance Information Systems. Work products included, all XML schemas and web user interface infrastructure for the following Verify modules: Updated Manufacturer Module, Nonroad Compression Ignition (NRCI) Certification; Nonroad Spark Ignition (NRSI) Certification (contains 4 submodules): Update Locomotive Certification including the two additional submodules; Light Duty CAFE/GHG; Light Duty Tier3 certification; Updated Fuel Economy Label; Heavy Duty Vehicle GHG certification; Heavy Duty Engines Certification; CROMERR-Enable Request for Certificate module; Audit Change Log; Fees Integration. Other tasks were completed under this task order such as the migration of Verify and related applications from Ann Arbor, Michigan to NCC servers in Research Triangle Park, North Carolina; incorporating Scrum Agile methodology resulting in 2-week sprints and frequent deployments; support maintenance including Verify Help Desk.

### **3. Purpose and Scope**

The purpose of this task order is to provide information technology services to support for CD's information technology systems, Engines and Vehicles Compliance Information Systems (EV-CIS). EV-CIS is comprised of what is commonly referred to as Verify and other smaller information systems. This task order includes information technology services such as consulting, architecture planning, code development, code maintenance, end user support, and task order management.

This task order is meant to help CD develop, implement and maintain IT products and services that will provide the most value for EPA and its stakeholders. This means:

- Building secure systems that can run on multiple platforms, both desktop (web) and mobile devices.
- Migrating to a devops environment.
- Making sure that automated testing and continuous improvement are baked into our processes.
- Ensuring that best coding practices are used;
- Providing transparent code repository.
- Building re-usable components.
- Designing products that are intuitive, and easy to use for our end-user community
- Providing easy-to-use but robust reporting and publishing capabilities.

We understand that this requires continuous user engagement in product development.

We also wish to maintain our Agile Scrum Practices, which includes using tools such as Atlassian JIRA and Confluence. It means managing a common product back log for new development and code maintenance. We run two-week sprints and our current definition of "Done" is when a user story is developed, internally tested, peer-reviewed and demonstrated or tested by EPA. We currently have multiple scrum teams working simultaneously, and each quarter we have a Scaled Agile event to determine with the contractors, what work is going to be done in the upcoming three months. We

have contracted scrum teams, with contractor scrum master, and a contracted product owner (proxy). In the future, EPA will have its own product owner team, but there will still be a need for a product owner proxy until the EPA product owner team has been successfully established.

EPA understands the importance of having strong communication feedback loops between EPA teams and the contractor teams. We will need to meet weekly or biweekly on issues. Risks are continually monitored and managed, and are considered to be a shared responsibility between EPA and the contractor.

EPA frequently releases software. We currently deploy minimally two major releases a year, and multiple minor releases (4 or more). Our future expectation is to increase our release deployment frequency. We believe that frequent releases will lower the overall deployment and maintenance costs. It is important that the contractors understand that they will be in a highly collaborative environment working with EPA and other contractors. Also note that our systems interface with other systems, and you will be responsible for understanding that interaction and working with the other system owners and associated people resources.

Good customer service is also highly valued. We want issues addressed and resolved quickly.

EV-CIS is the primary system the contractor will work with. It is currently comprised of two web applications: the Engine and Vehicle Manufacturers Interface -primarily used by manufacturers to submit information to EPA; and the EPA Compliance Interface - primarily used by EPA to review and act on submissions. Here is some information of the current system to help you scope your response.

<b>System Statistics</b>		<b>Total #</b>
Data Elements		111,103
Oracle Tables		639
Active Documents Stored		178,116
Web Forms/Screens		
Manufacturer Interface	543	
EPA Interface	322	865
XML Schema Files		64
Business Rules		
Active	3,254	
Inactive	349	3,603
Calculations		122
Dataset Submissions in FY2015		128,595

Figure 2

- 3.1. The contractor shall use EPA/National Computing Center development and test environments. This does not preclude contractors having their own secure local development environment.
- 3.2. The current OTAQ CIS development architecture has demonstrated success with a stack of predominately open source development and test tools. The OTAQ CIS contractor shall continue

to utilize these established tools, with the expectation that the development and test architecture shall evolve.

- 3.3. OTAQ CIS contractors shall have the opportunity to influence the development and test tool suite if sufficient justification is presented. The Government requires that prospective vendors have competency with the tools and technologies listed below:

3.3.1. Programming Languages:

Current Programming Languages	
<i>Purpose</i>	<i>Names</i>
<b>Logic</b>	Java
<b>Web Interface</b>	JSP, HTML/CSS
<b>Submission Data and Configuration</b>	XML, XSD
<b>Object-to-Relational Mapping Framework</b>	Hibernate
<b>MVC Framework</b>	Spring
<b>Web Application Framework</b>	Struts
<b>Business Rules Framework</b>	Drools
<b>Responsive Web Design Framework</b>	Bootstrap

3.3.2. Platform (for development and when deploying Operating Systems – Windows 7, RedHat Linux)

Current Development Platforms	
<i>Purpose</i>	<i>Names</i>
<b>Integrated Development Environments (IDE)</b>	Eclipse
<b>Source Control</b>	Subversion (GitHub currently being evaluated)
<b>Framework to support Java builds</b>	Apache Maven, Apache Ant
<b>Application Server (middleware)</b>	Apache Tomcat, Apache HTTP Server
<b>Relational Database Management System</b>	Oracle 11g and above
<b>Business Rules Engine</b>	JBoss Drools
<b>Business Process Management (BPM) Engine</b>	JBoss jBPM
<b>Automated Testing and Continuous Integration System</b>	Jenkins

3.3.3. Tools

Current Tools Used	
<i>Names</i>	<i>Purpose</i>
<b>Eclipse</b>	Integrated Development Environment (IDE) used for the development of Java applications.
<b>Microsoft Visio</b>	A general purpose drawing tool used for diagramming, visualization, and developing Unified Modeling Language (UML) diagrams
<b>Altova XMLSpy</b>	IDE for XML, used to design XML Schema Definitions (XSDs) and also to work with XML instances.
<b>Subversion</b>	Software code repositories used for managing changes to software code base.
<b>Oracle Application Express (ApEx)</b>	A rapid application development tool used to develop web screens and search queries

<b>Selenium</b>	A web browser automation tool used for regression testing.
<b>Sonatype Nexus OSS</b>	Maven Repository
<b>Atlassian JIRA</b>	Bug and issue tracker
<b>Atlassian JIRA Agile</b>	Agile (Scrum and Kanban) sprint and release planner
<b>Atlassian Confluence</b>	Team Collaboration software that integrates with JIRA and JIRA Agile
<b>Microsoft Office</b>	Productivity software
<b>TOAD for Oracle</b>	Used for developing SQL queries outside the application, also used for diagramming database tables and their relationships.
<b>Adobe Connect</b>	A web conferencing tool used for collaboration and conducting webinars

- 3.4.** Further the Government requires that any solutions developed under this task order :1) are based on an understanding of EPA Information Technology (IT) infrastructure and systems engineering practices; 2) comply with the applicable Federal and Agency regulations and standards pertaining to the specific task (including Section 508 compliance – [www.section508.gov](http://www.section508.gov)); 3) use an appropriate level of security based on industry best practices, Federal and Agency regulations; 4) meet the performance levels and/or metrics associated with specific areas.
- 3.5.** Adding work to the Product Backlog is a responsibility of the EPA’s Product Owner Team, Prioritizing, and deleting work from the Product Backlog is a joint effort between the Product Owner Proxy and EPA’s Product Owner Team. This process is how work is initiated in this agile environment.
- 3.6.** The contractor shall perform all the related requirements outlined in this statement of work.

#### **4. Task Order Goal**

The goal of this task order is to design, develop and implement web-based applications utilizing Agile processes that achieve results through continuous capability enhancements, minimal downtime, prompt response to emerging needs, and demonstrated reliability and optimized performance with resource utilization minimized. The scope of the task order encompasses requirements for expert companies to provide the business analysis, development, implementation, maintenance and help desk services for new and existing applications within the EPA- provided environments. These applications are used to support EPA’s mobile source compliance programs.

There will be new work and continuation work, but not all project/product work will be defined in this SOO. The Verify system was built in a multi-modular and multi-release fashion over ten years. Some parts of the system, such as the Motorcycle/ATV certification module, do not have the same capabilities as our most recent modules, such as the Marine CI certification. In the first year, we want to make architectural updates that will ensure a consistent user experience across the modules. We want to integrate help into the system to make it intuitive so that a user, who uses the system infrequently can maneuver around the system as well as a frequent user. We want APIs developed to ensure that future modular development is more plug-and-play, and re-usable components developed. There is also

continuation work in making our modules CROMERR-enabled, which are Java web applications with Oracle database and using Drools Rules Engine.

The Verify submissions can also come in as batch XML instances. Most of the input formats and description of the work we have done is located at [www.epa.gov/otaq/verify](http://www.epa.gov/otaq/verify).

## **5. Functional Area for Statement of Objective:**

**5.1. Business Analysis, Development, and Integration:** Involves analyzing business needs, developing responsive web applications and APIs to meet those business needs and includes their integration with Agency's existing systems (includes the tracking of related issues or user stories).

**5.1.1.** The contractor shall work with Agency stakeholders and technology professionals to properly understand business requirements and develop an industry best practice approach to technology solutions.

**5.1.2.** The contractor shall track all issues and user stories and their on-going status in the EPA-provide tool, which is currently Atlassian Jira and Jira Agile.

**5.1.3.** The contractor shall develop or configure, test, stage, and release business applications by applying iterative processes utilizing the proposed Agile methodology and a frequent release cycle.

**5.1.4.** The contractor shall develop the code in a manner that reduces any future maintenance costs. This include using best practices such as those in included in the OTAQ CIS systems, which includes but not limited to the following:

**5.1.4.1.** The use of business rules and business rules engine, we are currently using Drools Rules Engine.

**5.1.4.2.** The coding should be data driven (as much as possible) using enumerations and configurations stored in database tables or parseable text files.

**5.1.4.3.** The development should be test-driven ensuring that only code that has successfully passed testing is checked in.

**5.1.5.** The contractor shall provide customer - friendly open source solutions that provide ease of use for non-technical users.

**5.1.6.** The contractor shall ensure commercial best practices workflows shall come bundled with the solutions.

**5.1.7.** The contractor shall design solutions that offer role or attribute based identity management, authorization, and authentication across all business applications.

**5.1.8.** The contractor shall ensure all content is preserved according to federal record retention requirements and applications shall have the ability to protect personally identifiable information (PII).

**5.1.9.** The contractor shall ensure applications are developed such that response times for application end users fall within best practice levels.

**5.1.10.** The contractor shall provide comprehensive documentation and information necessary to analyze processes, procedures, and/or policies that were implemented in the creation of the applications in the format requested.

**5.1.11.** The contractor shall provide secure mechanisms to allow data exchange and interaction with external systems.

**5.1.12.** The contractor shall provide business process analysis expertise with regard to optimizing the utilization and adoption of the software platform among Government users.

- 5.1.13. The contractor shall seek to configure off-the-shelf aspects of the selected platform before recommending a customized coding approach.
  - 5.1.14. The contractor shall develop system configuration in such a manner as to leverage maximum re-use and sharing across the platform by other federal agencies.
  - 5.1.15. The contractor shall provide incremental documentation through sprint cycles that results in full technical and end-user documentation or configuration for all software development efforts and product releases with all information necessary to document processes, procedures, code artifacts, and/or policies that were implemented in the creation of the development work.
  - 5.1.16. The contractor shall develop code that does not add new technical debt to a release; The contractor shall correct any defects identified by testers, code reviewers, automated tools, or as part of the continuous integration (CI)/continuous delivery (CD) activities etc.
  - 5.1.17. The contractor's work shall conform to the architecture and standards provided by the government. This shall include providing input to any documentation required to maintain compliance with EPA and Federal standards.
  - 5.1.18. The contractor's code shall meet the functional and non-functional requirements. The code shall meet database development requirements. The code shall be deployable and fully tested.
  - 5.1.19. The contractor shall deliver and maintain the tested and deployable code in EPA's designated repository (currently Subversion)
  - 5.1.20. The contractor shall create a Quality Management Plan.
  - 5.1.21. The contractor shall ensure development-related activities are in accordance with the contractor's Quality Management Plan.
  - 5.1.22. When the contractors meets with EPA, the contractor shall provide informal agendas, and take informal meeting minutes online in real-time using the collaborative tools EPA provides , so that EPA can review, amend and approve the minutes before the meeting adjourns.
- 5.2. Post - Implementation Development/Maintenance Support:** for production applications on the collaboration platform and expansion or updates of production applications to meet ongoing unique objectives and requirements of specific Agency components (includes the tracking of related issues or user stories):
- 5.2.1. The contractor shall track all issues and user stories and their on-going status in the EPA-provide tool, which is currently Atlassian Jira and Jira Agile.
  - 5.2.2. The contractor shall maintain the software to include fixing defects, application software, tools, capabilities, and databases for the software applications, and related functionality in support of the user community and the Program Management Office.
  - 5.2.3. The contractor shall maintain the software to include fixing defects, application software, tools, capabilities, and databases for the software applications, and related functionality in support of the user community and the Program Management Office.
  - 5.2.4. The contractor shall apply Agile and iterative development methodologies in order to provide timely capabilities to the user community.
  - 5.2.5. The maintenance tasks also include maintaining system/software engineering, integration activities, system security, program lifecycle documentation, application documentation, and database documentation required for continued software support and requirements management.

**5.2.6.** Target release timeframes shall be conducted in 2 -week iterations with releases to production at least once every two months.

**5.2.7.** When the contractors meets with EPA, the contractor shall provide informal agendas, and take informal meeting minutes online in real-time using the collaborative tools EPA provides , so that EPA can review, amend and approve the minutes before the meeting adjourns.

### **5.3. Test, Integrate and Configuration Management:**

**5.3.1.** The contractor shall collaborate with other teams to support continuous code integration.

**5.3.2.** The contractor shall share test scripts (manual and automated) as needed with other testing entities.

**5.3.3.** The contractor shall assist with crafting validation steps (both positive and negative testing) for user acceptance testing on an as needed basis.

**5.3.4.** The contractor shall support the activities of the Integration and Configuration team to ensure the automatic build and deployment process works effectively across all environments, including the contractor's dev/test enclave. Deployment and testing in the dev/test environment should mimic closely the actions performed for deployment and testing in staging and production.

**5.3.5.** The contractor shall perform development testing before the commit stage in the continuous integration pipeline.

**5.3.6.** The contractor shall meet or exceed all EPA and Federal regulatory policies and procedures which affect Configuration and Change Management processes to be implemented on OTAQ CIS.

**5.3.7.** The contractor shall document, implement, and maintain Configuration and Change Management processes according to EPA's polices and guidance. These processes include the following:

**5.3.7.1.** Documenting and maintaining the configuration baseline(s) applicable to the deployed system.

**5.3.7.2.** Effectively managing and tracking all system configuration and associated document changes, as well as the integrity, availability and maintainability of the system.

**5.3.7.3.** Effectively planning to ensure the ability to reverse a deployment or implementation.

**5.3.7.4.** The contractor shall incorporate applicable industry best practices, which support optimum production system availability and effective system management into their Configuration and Change Management processes. These practices include:

- Using standardized documented methods, processes, and procedures.
- Effectively tracking and communicating all system changes made to hardware, software, firmware, and documentation, through planning, approving, notifying, developing, testing, scheduling, and managing the implementation of changes.
- Making effective risk-based decisions to maintain each system's mission capability, authorized security posture and minimized risk.
- Maximizing EPA resources.

**5.3.8.** The contractor shall establish Change Control Boards (CCB) as appropriate to ensure changes to the OTAQ CIS Infrastructure are reviewed and processed in accordance with established EPA Configuration and Change Management processes and procedures.

**5.3.9.** The contractor shall utilize a Configuration Management Database (CMDB) / equivalent repository that contains and tracks relevant information about configuration items, their attributes, baselines, documentation, changes, and relationships.

**5.3.10** The contractor shall update the Configuration Management Procedure that shall be in compliance with EPA's Configuration Management Policy and includes the contents outline in EPA's Configuration Management Procedure (if necessary). This procedure should include the five tenets of Configuration Management:

- Configuration Planning and Management
- Configuration Identification
- Configuration Change Management
- Configuration Status Accounting
- Configuration Verification and Audits

**5.4. Tier 1 Helpdesk Support:**

**5.4.1.** The contractor shall provide user support services, as required, to OTAQ CIS user community. This community is defined as submitters of information to the systems as well retrievers and analyzers of data from the systems. The current stakeholders of these systems include auto manufacturers, EPA staff, and other federal and state agencies.

**5.4.2.** The support services include the tracking and providing of factual answers or responses to OTAQ Compliance Information system requests, and to provide queries of OTAQ CIS databases.

**5.4.3.** The contractor shall:

- Always be courteous and receptive to customers
- Solve technical issues/problems over the phone
- Refer systemic issues and solutions to EPA system managers
- Continually make a concerted effort to communicate contractors within this task order, EPA stakeholders and other involved contractors to explain and resolve problems

**5.4.4.** The CIS Help Desk telephone and e-mail service shall be open to end users each Federal business day from 8:00 a.m. to 5:00 p.m. eastern standard time; at all other times, calls shall be taken by voice mail and retrieved at the start of the next CIS Help Desk service shift.

**5.4.5.** All calls shall be answered with the contractor identifying themselves as a contractor. This identification shall also be indicated on the systems voice mail and any email activity.

**5.4.6.** The contractor shall also provide a help desk central phone number and email address.

**5.4.7.** All help desk action requests and trouble reports shall be recorded in a manner which shall allow trend analysis via an action request tracking system.

**5.4.8.** The tracking system needs to be secure and accessible by EPA, 508-compliant, and used as a knowledge database to improve the answers over time.

**5.4.9.** The contractor shall also be responsible for reviewing both the help desk's voice mail requests and all CIS User Support electronic communications by 8:30 a.m. daily.

**5.4.10.** Upon receipt, all requests shall be entered in the electronic tracking system for analysis and immediate resolution. Actions and solutions for these requests should also be tracked in this tracking system. All transactions should be time and date stamped.

- 5.4.11. The tracking system should be accessible by EPA and exportable to an XML format. The contractor's support staff attempt to duplicate reported problems immediately upon receipt.
- 5.4.12. Emergency problems shall be responded to with a call back to the user as soon as possible, and if possible, within two hours. All other calls shall be responded to with a call back to the user no later than the next business day. Other requests shall be addressed in order of receipt and assigned to a support staff for resolution.
- 5.4.13. The contractor's support staff shall have primary responsibility for maintaining and updating the request tracking system, and contacting users with an update and resolution status of all reported issues.
- 5.4.14. Calls that cannot be resolved in a reasonable time should be referred to level 2 support, however the Help Desk shall keep the customer apprised of the situation.
- 5.4.15. Types of requests shall include support of manufacturers with the submission process, and query requests from EPA and other stake holders.
- 5.4.16. All requests including non-routine queries should be approved by the Contract Office Representative (COR), if the estimation to complete exceeds two hours.
- 5.4.17. In all cases, the contractor shall create the action request ticket, attempt to resolve the problem, and, as necessary, contact the appropriate EPA workgroup for final resolution.
- 5.4.18. The contractor shall survey users to report to EPA about the OTAQ CIS Help Desk customer satisfaction.
- 5.4.19. The contractor shall provide EPA with its standard operating procedures.
- 5.4.20. The CIS Helpdesk may have to work with other Help Desks, such as the CDX Help Desk, the EPA Call Center, or the EZ-Tech Help Desk.

## **5.5. Tier 2 – 3 Helpdesk Support:**

Tier 2 Helpdesk Support is necessary when the complexity of the resolution of the tasks takes more than 2 hours to complete. This level of support may be able to resolve the issue or work with the Tier 1 help desk support or developers to resolve the issue. Conversation and resolutions should be recorded with the help desk ticket. If the issue results in a maintenance fix a JIRA ticket shall be created and routed to the Post - Implementation Maintenance Support team under subtask 5.2 – Post – Implementation Maintenance Support.

## **6. Program Management Support**

### **6.1. General Program Management Support**

- 6.1.1. The contractor shall collaborate with stakeholders, support contractors, and third party vendors throughout system integration, performance, security, Section 508, system acceptance, user acceptance, usability, and test and evaluation reporting.
- 6.1.2. The contractor shall manage all contractor resources and supervise all contractor staff in the performance of work on this task order. The contractor shall manage and coordinate its team(s) on a day-to-day basis and ensure plans are communicated to team members. Likewise, the contractor must ensure that the progress against those plans is adequately reported.
- 6.1.3. The contractor shall organize, direct and coordinate planning and execution of all task order activities.

- 6.1.4.** CIS has established the use of Confluence, JIRA, and JIRA Agile as vehicles for transparency. Projects and workspaces, shall be maintained with information, so that reports and charts can be generated as needed, and so that user stories, defects, and tasks and their status are available to stakeholders. These tools should also be used as the primary tools for communication with the exception for contractors proprietary financial reports, which can either be securely submitted to EPA through email or a contractor's tool such as Sharepoint.
- 6.1.5.** The contractor shall furnish everything needed to perform this contract except for those items specifically stated as Government-furnished.
- 6.1.6.** The contractor shall use the software development industry standards and industry best agile practices for providing the products and services required by the contract in the absence of specific contract requirements.
- 6.1.7.** The contractor shall be responsible for overall responsiveness, cost control, adherence to schedules, and technical quality of work.
- 6.1.8.** The contractor shall propose and conduct periodic discussions (both formal and informal, telecom and face-to-face) with OTAQ CIS stakeholders (and/or delegates) in the form of technical exchange meetings (TEMS), collaborative development sessions, program reviews, design reviews, etc. as required.

**6.2. Monthly Progress Reporting** - The contractor shall provide monthly progress reports monitoring performance and finances associated with this task order. The Technical Progress Report, shall contain a two-page executive summary, and should not exceed 20 pages in length. OTAQ reserves the right to provide the format and elements of the Progress Report. It should include the following:

- 6.2.1.** The contractor shall furnish an electronic PDF and Microsoft Excel/Word copy of the combined monthly technical and financial progress report stating the progress made, including the percentage of the project completed, and a description of the work accomplished to support the cost. Specific discussions include difficulties encountered and remedial action taken during the reporting period, and anticipated activity with a schedule of deliverables for the subsequent reporting period.
- 6.2.2.** The contractor shall provide a list of outstanding actions awaiting Contracting Officer authorization.
- 6.2.3.** The report shall specify financial status at the task order level as follows:
- 6.2.3.1.** For the current reporting period, display the amount claimed.
- 6.2.3.2.** For the cumulative period and the cumulative task order life display: the amount obligated, amount originally invoiced, amount paid, amount suspended, amount disallowed, and remaining approved amount. The remaining approved amount is defined as the total obligated amount, less the total amount originally invoiced, plus total amount disallowed.
- 6.2.3.3.** For labor hours The Contractor shall:
- Provide a list of employees and subcontractors, their labor categories, and the numbers of hours worked for the reporting period.
  - Display the expended direct labor hours, and the total loaded direct labor costs for the current reporting period.
  - Display the negotiated and expended direct labor hours and the total loaded direct labor costs for the cumulative Task Order

- Display the estimated direct labor hours and costs to be expended during the next reporting period.
- Display the current dollars obligated in the task order, net amount invoiced, and remaining amounts for the following categories: Direct labor hours, total estimated cost, subcontracts by individual subcontractor, travel, program management, and Other Direct Costs (ODCs).
- Display the total costs incurred but unbilled for the current reporting period and cumulative for the task order.
- Display amount shown on each subtask; amount currently claimed; and remaining approved amount for the cumulative period. The remaining approved amount is defined as: the subtask amount less total amounts originally incurred.
- Display the estimates of remaining direct labor hours and costs required to complete the task order.
- Provide a graph using a vertical axis for dollars and a horizontal axis for expenditures against the total estimated price of the task order.

**6.2.4.** Provide a list of deliverables for each project during the reporting period.

**6.3. Weekly project meeting and corresponding informal progress reporting** - The contractor shall conduct a weekly project management meeting and provide weekly informal progress reports monitoring performance and finances associated with this task order.

**6.3.1.** The contractor shall provide an agenda for the meeting prior to the meeting. The agenda shall be created in Confluence or another collaborative tool EPA provides.

**6.3.2.** The contractor shall create meeting minutes in real time and displayed so that all meeting members can see.

**6.3.3.** The contractor shall present and provide up-to-date information through Friday of the previous week, this includes but not limited to the following:

- Task order funding
- Task order spending broken down by tasks and subtasks
- Agile burn down charts
- Status of activities of the past week
- Planned activities for the upcoming week
- Action Items

**6.4. Financial reporting and cost tracking** - In addition to standard task order reporting requirements, OTAQ requires a mechanism for providing costs and estimates at the subtask or project request level with the capability to track costs to the type of work performed as it relates to OTAQ CIS systems. All costs associated with projects and work requests shall be reported in the monthly report by subtask as well as at an aggregate level, and as specified by the individual task order subtasks. All costs associated with specific project codes shall be reported in the monthly report, and as specified in the individual work request.

**6.4.1.** Project codes shall be established before technical work begins. Work estimates shall include costs associated with each major project milestone/phase. All cost-tracking for work to be billed should include information to identify the following:

- Contract Number
- Task Order Number
- Year of Task Order
- Subtask
- Project
- Work Description / Other

**6.4.2.** The contractor shall create financial reports and track costs at a detailed level and produce standard reports as well as ad hoc reports. Changes in established project codes must be reviewed by the Requestor, and approved by the TOCOR. Costs shall be included in the monthly financial report due by the 15th of the month following the month reported. Additional financial reporting requirements shall be specified in the individual work request or technical direction document.

**6.4.3.** Reports shall be accurate, clear, complete, timely and in accordance with the requirements in the work request. Information in the monthly progress reports should be consistent with costs identified in the associated monthly invoice and consistent with generally accepted accounting principles.

## Deliverables

Functional Area #	Functional Area Name	Deliverable	Date Due
5.1	Business Analysis, Development, and Integration	Software Code	At the time of release
		Release Documents	One week prior to release
		Quality Management Plan	When requested by the COR
		Meeting Minutes in Confluence	At the end of meeting
		JIRA and Confluence Updates	When requested by the COR
		User and Administrator Guides	At the time of release
5.2	Post - Implementation Development/Maintenance Support	Software Code	At the time of release
		Release Documents	One week prior to release
		Test Plan and Results	When requested by the COR
		Meeting Minutes in Confluence	At the end of meeting
		JIRA and Confluence Updates	As needed
		User and Administrator Guides	At the time of release
5.3	Test, Integrate and Configuration Management	Test Plan and Results	When requested by the COR
		Change Control Board Meeting Minutes in Confluence	At the end of meeting
		Change Request Reports	When requested by the COR
5.4	Tier 1 Helpdesk Support	Monthly Help Desk Report	Monthly
		Customer Satisfaction Surveys	Summary Monthly, detailed Bi-Annually
5.5	Tier 2 – 3 Helpdesk Support	Update JIRA tickets	ongoing

<b>Program Management Area #</b>	<b>Program Management Area Name</b>	<b>Deliverable</b>	<b>Date Due</b>
6.1	General Program Management Support	Task Order Management Plan	When requested by the COR
6.2	Monthly Progress Reporting	Monthly Progress Reports	Monthly
6.3	Weekly project meeting and corresponding informal progress reporting	Weekly Progress Reports	Weekly
6.4	Financial reporting and cost tracking	Financial Reporting and Task Tracking	Weekly

All deliverables will be defined in subtasks issued under this task order. All written deliverables shall be provided in electronic format conforming to EPA standards. Some deliverables may need to be provided in multiple electronic format types for import or integration into EPA financial databases and project management systems or for reporting purposes and use in management dashboard web applications.

#### **Acceptance Criteria for Deliverables:**

During the review of deliverables the TOCOR shall have the right to reject or require correction of any deficiencies found in the deliverables. In the event of rejection of any deliverable, the contractor will be notified in writing by the TOCOR of the specific reasons why the deliverable is being rejected. The contractor shall have 10 calendar days to correct the rejected deliverable and return it to the TOCOR. The following list of acceptance criteria applies to all tasks.

1. Completeness, clarity, timeliness, organization, consistency, meets requirements, quality, grammatically correct, and technical accuracy.
2. Soundness of code

Additional acceptance criteria may be specified in individual work requests

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Attachment A